

REMARKS

Claims 1-2, 7-27, 78, 80-83, 108-110 and 115 are currently pending in this application. By this amendment, Applicants have requested that claims 1, 7-11, 13, 15-18 and 20-21 be amended and that claims 19, 23-27 and 78 be cancelled without prejudice. Applicants request reconsideration of this application in view of these amendments, claim cancellations, and following remarks.

I. Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1-2, 7-27, 78, 80-83, 108-110 and 115 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter applicants regard as the invention. Applicants traverse the rejections of the claims under 35 U.S.C. § 112, second paragraph, and request that such rejections be withdrawn.

A. Claim 1

Claim 1 is rejected in view of the word “representing.” Applicants have amended claim 1 to more specifically recite that “representing” comprises “determining data sufficient to generate a feature vector having both numerical and non-numerical feature descriptors.” Support for this claim amendment can be found throughout the application, such as at page 55. Because claim 1 now expressly defines the term “representing,” Applicants request that the rejection be withdrawn.

B. Claims 8-10

Claims 8-10 are rejected in view of the phrase “software expert parameters” and “expert parameters.” Applicants have amended these claims to delete the term “software.” Furthermore, these claims state that experts “encode functions that map the feature vector to a set of scenarios.” Thus, these claims expressly define “experts.” The term “experts” is specifically defined at page 126, lines 14-15. Applicants therefore request that the rejections of claims 8 and 9 be withdrawn.

C. Claims 11, 17-18, 23 and 26

Claims 11, 17-18, 23 and 26 are rejected in view of the phrase "simplex scenarios." Applicants have amended claims 11 and 17 to specifically state that simplex scenarios "are generated by exposing a single biological system serially to two or more bioactive conditions." Claims 11 and 17 now expressly define "simplex scenario." Support for this amendment can be found throughout the application, such as at page 126, lines 20-21. Claim 18 depends from claim 17, and claims 23 and 26 have been canceled. Applicants therefore request that the rejections of claims 11, 17-18, 23 and 26 in view of "simplex scenarios" be withdrawn.

D. Claims 13 and 15

Claims 13 and 15 are rejected in view of the phrase "experts." Claims 13 and 15 have been amended in a fashion similar to claims 8 and 9 to expressly define "experts." Applicants therefore request that the rejection of claims 13 and 15 be withdrawn.

E. Claims 16, 24 and 27

Claims 16, 24 and 27 are rejected in view of the phrase "complex scenario." Applicants have amended claim 16 to expressly define "complex scenarios" as "exposing two or more biological systems serially to two or more bioactive conditions" to "generate the complex scenario following mathematical transformation." Support for this amendment can be found throughout the application, such as at page 126, lines 23-24. Applicants have also cancelled claims 24 and 27 without prejudice. The rejection of claims 16, 24 and 27 therefore should be withdrawn.

F. Claim 18

Claim 18 is rejected in view of the phrase "where each simplex scenario is an elicitor." Claim 18 has been amended to expressly define an elicitor as comprising "bioactive conditions and a protocol used to apply the bioactive conditions to one or more biological systems." Support for this amendment can be found throughout the application such as at page 52. Applicants therefore request that this rejection be withdrawn.

G. Claims 24-27

Applicants have cancelled claims 24-27 without prejudice.

H. Claim 78

Claim 78 has been cancelled without prejudice.

II. Rejection under 35 U.S.C. § 101

The pending claims are rejected under 35 U.S.C. § 101 for allegedly failing to have utility. While Applicants disagree with this conclusion, Applicants nevertheless have adopted the Examiner's suggestion and hence have amended claim 1, from which all pending claims depend, to state "outputting a classification result to a user." Claim 1 clearly provides a tangible result, and applicants therefore request that the rejection under 35 U.S.C. § 101 be withdrawn.

III. Rejection under 35 U.S.C. § 102

Claims 1-2, 7, 12-16, 18-82 and 108-110 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Bevilacqua *et al.*'s U.S. Patent No. 6,692,916 (the '916 patent). Applicants traverse this rejection, and request that it be withdrawn.

Applicants have amended claim 1 to state that the method comprises generating a scenario by exposing biological systems to two or more bioactive conditions. The '916 patent teaches exposing a human, or perhaps a cell culture, to a single pharmaceutical or nutraceutical. It does not teach exposing a biological system to plural bioactive conditions. For this reason alone, the rejection under 35 U.S.C. § 102(e) should be withdrawn.

Furthermore, claim 1 states that representing the response of the system comprises determining data sufficient to generate a feature space vector. The feature space vector may include both numerical and non-numerical feature descriptors. The '916 patent solely teaches a statistical approach, i.e. a numerical approach that does not include the possibility of non-numerical features. For this additional reason, the rejection under 35 U.S.C. § 102(e) of claim 1 should be withdrawn.

The remaining rejected claims depend, either directly or indirectly, from claim 1. These claims also are allowable over the '916 patent for the reasons stated above for independent claim 1, and further in view of the patentable combinations of features recited in such claims.

IV. New Claims

Applicants also have added new claim 118-119. Support for claim 118 can be found throughout the application, such as at page 52. Support for new claim 119 can be found throughout the application, such as at pages 55-56.

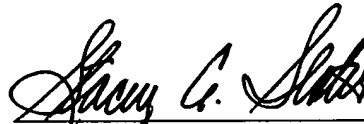
The present application is in condition for allowance, and such action is requested.

Respectfully submitted,

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